IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application Of:	)		
	)		
Rebecca L. SIEGEL *et al.*	)	Group Art Unit:	3624
	)		
Application Number: 09/901,078	)	Examiner: Stefanos KARMIS	
	)		
Filed: July 10, 2001	)	Confirmation No.:	7083

For: SYSTEM AND METHOD FOR SUPERVISING ACCOUNT MANAGEMENT OPERATIONS

MAIL STOP AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

DECLARATION OF DR. WILLIAM F. MANN III UNDER 37 C.F.R. § 1.132

I, Dr. William F. Mann III, a citizen of the United States, hereby declare and state as follows:

1.   I am First Vice President of Patent Business Development, Office of the General Counsel, Legal Department, Tech, Sourcing & IP Law for formerly First U.S.A. Bank, N.A. ("First USA"); formerly Bank One, Delaware, N.A.; and now JPMorgan Chase & Co ("JPMorgan").

2.   I received a Bachelor of Science at the United States Military Academy, West Point, N.Y. (1976); a Masters of Science (Operations Research) at the Air Force Institute of Technology, Wright Patterson AFB, Ohio (1991); and a Doctor of Engineering at Southern Methodist University (SMU), Dallas, Texas (1998).

3.   I have worked with First U.S.A. Bank, N.A. and affiliated companies since June 1, 1999, and have served as Vice President for the Operations Research Team for

the Customer Support Division and First Vice President, Patent Business Development for the Law Department.

4.   I have personal knowledge of the Delinquency Movement Matrix ("DMM") system developed by First USA, which is the subject matter of U.S. Application No. 09/901,078 ("the '078 Application").

5.   I have read the '078 Application and have examined various documents and prior art references related to the prosecution of this application.

6.   I have access to and knowledge of First USA's confidential financial information.

7.   I have been asked to submit this Declaration to demonstrate the commercial success of the invention claimed in the '078 Application.

8.   In the 1998 to 1999 time frame, First USA had approximately $69 billion in credit card debt. Credit card debt is non-secured personal debt, and therefore it presents a high risk to the creditor. Historically, credit card debt that is less than 30 days past due is typically recoverable, but the ability to recover the debt decreases as the account becomes more delinquent. Under banking regulations, credit card debt that is over 180 to 210 days past due can no longer be maintained as an asset on the balance sheets, and must be written off as a loss.

9.   In the 1998 to 1999 time frame, First USA employed about 2,500 customer service representatives ("CSRs"), at nine different sites, to undertake debt collection activities. First USA used generally standard debt collection processes in which CSRs telephoned debtors to attempt to obtain remittance on delinquent accounts. For example, the CSRs obtained promises to pay on delinquent accounts, and were evaluated according what percentage of the promised amount was actually remitted. CSRs were also evaluated according the to average size of the fulfilled payments. Both of these measurements failed to provide a total picture on how well a CSR was doing for the company's bottom line.

10.   Despite the implementation of these and other generally standard debt collection practices, In the 1998 to 1999 time frame, First USA suffered approximately $3.9 billion in losses of unsecured credit card debt per year. That is to say, $3.9 billion worth of delinquent accounts became more than 180 days past due. This, of course, represented a tremendous (but typical) commercial loss to the company.

11.   During the period of 1999 to 2000, I was the Vice President of the Operations Research Team, which included six to twelve people, half of whom held Doctorate degrees. The mission of the Operations Research Team was to make the collections effort more effective and efficient. As part of this mission, the Operations Research Team was tasked with analyzing First USA's debt collection practices to determine how to reduce the losses on unsecured credit card debt.

12.   Working with the Operations Research Team, the inventors of the present application — Rebecca Lynn Siegel (a site manager in First USA's Frederick, Md. collection facility), Jeffrey David Finocchiaro (an analyst working directly for me), and William Fredrick Herberger (the head of operations) — ultimately conceived of and developed the Delinquency Movement Matrix ("DMM"), which is the basis for the '078 Application. The DMM incorporates the novel approach of using the change in delinquency level of a credit card account as a metric in evaluating and rewarding the collection efforts of CSRs.

13.   Prototype versions of the DMM were developed and tested within First USA, and First USA ultimately purchased an IBM cluster mainframe computer for approximately $250,000 to implement the DMM in commercial use at the institutional level.[1] The use of this powerful computer was necessary to track the delinquency movements of the large number of accounts that formed the First USA asset portfolio,

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[1] It is my understanding that First USA was only the third entity to purchase this type of computer, with the other two being acquired by the National Security Agency and the National Reconnaissance Office.

and thereby determine the effectiveness of the CSRs handling the accounts, in a timely manner.

14. The commercial embodiment of the DMM includes a CSR evaluation system that examines the baseline status of a delinquent account, then compares this status with an updated status after a predetermined period has elapsed to determine the change in the level of delinquency of the account. The DMM then generates a score based on the change in level of delinquency, and assigns this score to the CSR handling the account. These features are described in the relevant pages of the August 2, 2005 First Discovery Training Manual for the DMM[2] (the "DMM Training Manual"), which are attached hereto as Exhibit A. As shown in the DMM Training Manual excerpts, the DMM works by comparing the balance and level of delinquency of an account at the time a promise to receive payment is made, and compares this to the balance and delinquency level ten days later. DMM Training Manual, p. 12. "DMM then ... looks at how the delinquency has changed on the account in the 10-day period." *Id.* Once the change in delinquency is determined, the DMM multiplies the balance of the account by the total number of delinquent buckets moved to arrive at a DMM Points number. *Id.*, at p. 13. DMM Points are calculated for forward rolls (increasing delinquency), backwards rolls (decreasing delinquency), and static rolls (no change in delinquency). *Id.*, at p. 14. The DMM Points are eventually used to evaluate the CSR's performance, and assess incentive pay to the CSRs. *See, id.*, p. 27.

15. The effect of the DMM on reducing First USA's losses on unsecured credit card debt was immediate and dramatic. For example, prototype testing showed an 11% increase in collected funds over the existing conventional system. The commercial embodiment has also shown a similar increase in collected funds, as explained later herein in a direct comparison of the DMM with a competing debt collection system.

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[2] The cited portions of this manual were prepared for use with JPMorgan's implementation of the DMM, and are based directly on First USA's DMM system.

16.   In addition to dramatically reducing credit card debt losses, the implementation of the DMM allowed First USA to greatly improve the efficiency of its CSR workforce. Once the DMM performance evaluation regime was implemented, First USA was able to accurately determine each individual CSR's effectiveness at obtaining remittance on delinquent accounts. Since the DMM has been implemented, First USA has been able to remove approximately 500 ineffective CSRs, and close three collection sites, thereby reducing the total operating costs of the company and increasing its overall efficiency. This savings, alone, represented a significant commercial success for the company.

17.   The DMM also allows CSRs and their administrators to immediately understand their contribution to the company's bottom line, and rewards them for doing so. As such, the incentive program facilitated by the DMM has been effective at motivating CSRs to adapt their collection practices to achieve the company's goals. At the present time, JPMorgan (First USA's successor entity) pays nearly $1.5 million in bonuses to its CSRs based on the performance measuring system provided by the First USA DMM, and it is not unusual for a CSR increase his or her monthly pay by $700 or more. As such, the commercial success of the DMM extends to the CSRs themselves.

18.   The success of the DMM can be attributed to features and advantages of the invention described in the '078 Application. For example, as noted above, the DMM provides a tool to evaluate and remove ineffective CSRs, which creates a more efficient workplace. This feature and advantage of the invention is described in the '078 Application at page 12, line 1 to page 16, line 2, and elsewhere. In doing so, the DMM system also provides the CSRs with a motivation and guidelines to conform their collection activities with First USA's strategy of reducing credit card loss by emphasizing reduction in delinquency levels, rather than simply attempting to obtain high average payment amounts or high remittance percentages on promises to pay. In doing so, the DMM has created more effective collection habits among the CSRs, which has manifested itself as a dramatic reduction in credit card debt losses, as shown above.

19. Furthermore, the features and functions of the DMM have clearly contributed as a major factor to the commercial success achieved since the implementation of the DMM.

20. The commercial success of the DMM is perhaps best illustrated by the events that occurred during the recent merger of First USA with JPMorgan Chase. After the merger, JPMorgan (the merged entity) carefully studied the two original companies' debt collection practices to determine which practice was more effective and whether the more effective practice could and should be adopted by the other company. The study culminated in the development of the Collections Effectiveness Matrix ("CEM Report"), which is attached as Exhibit B in redacted form to protect trade secrets contained therein. The CEM Report provides a back-to-back analysis of First USA's DMM (which is referred to as the BOCS — "Bank One Collection System"), and JPMorgan's Heritage Chase Card Services ("CSS," or "hCSS"). As such, the CEM Report represents a concerted study comparing an embodiment of the present invention with known credit collection practices.

21. The CEM Report begins by comparing the asset portfolios that have been handled by the DMM and CSS systems to determine whether they are similar enough to conclude that a comparison of the systems' performance is a true like kind analysis (that is, an "apples-to-apples" comparison). To clarify the terminology, the CEM Report refers to First USA's DMM (the present invention) as "Strategy B," and sometimes as the "BOCS"[3] Strategy. The old CCS system is referred to as "Strategy A," and sometimes as the "CHASE" strategy. As shown in Slide 2, the CEM Report compares the asset mixes of the two systems, and concludes that they are similar. CEM Report, Slide 2. In fact, the CEM Report concludes that "[f]rom a prior delinquency experience perspective, there are only *minor differences* between the two portfolios," *id.*, Slide 6, and that "[f]rom a balance weighted perspective, there is *no material difference* between the

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[3] An acronym for "Bank One Customer Service."

two portfolios." *Id.*, Slide 7. Based on the analysis, the CEM Report concludes that there is "[n]o indication that BOCS approach will be ineffective against CHASE's portfolio, " *id.*, Slide 14 — that is, the similarity between the asset portfolios indicates that the DMM can be applied to the assets being handled by the old CSS system. These conclusions demonstrate that the CEM Report is a true "apples-to-apples" comparison of the performance of the DMM versus the performance of the CSS.

22.   The CEM Report analyzes the DMM ("Strategy B") and the conventional CSS debt collection system ("Strategy A") with regard to "liquidation" (payments over a 6-month period divided by initial balance and number of months), "loss" (cumulative losses over a 6-month period divided by initial balance), and various other factors. The nature of many aspects of this comparison is proprietary information, and therefore the CEM Report has been redacted to retain these trade secrets. As shown in Slide 2, which summarizes the CEM Report, the DMM is superior to the conventional CSS debt collection system in nearly every respect.

23.   With regard to liquidation and loss performance, the superiority of the DMM is clear. For accounts in Bucket 1, the CEM Report indicates that the DMM liquidation effectiveness exceeds the CSS in 90% of the comparison metrics ("cells"), and outperforms the CSS by over 10% in 64% of the comparison metrics. *See*, CEM Report, Slide 2 (the second column designates comparison results for Bucket 1, and the third column designates comparison results for Buckets 2-6). The CEM also indicates that the DMM's loss performance outperforms the CSS by over 10% across the board. *Id.* Considering that Bucket 1 represents approximately 63% of the total amount of outstanding debt owed to JPMorgan, *see* Slide 19, and that the total debt is measured in billions of dollars, these performance differences represent a tremendous commercial success for the DMM system. Similar benefits are obtained for accounts in Buckets 2-6, in which the DMM achieves higher liquidation rates than the CSS in 93% of the comparison metrics, and by more than 10% in 85% of the metrics. *See* Exhibit B, Slide 2. The DMM also outperforms the CSS with regard to losses for Buckets 2-6 —

outperforming the CSS in 84% of the comparison metrics, and by more than 10% in 57% of the metrics. *Id.* In view of the foregoing evidence, it is clear that the DMM clearly outperforms the old CSS system, resulting in tremendous commercial success in the form of higher liquidation and lower loss.

24.   The CEM Report also notes that the higher liquidation rates of the DMM system are attributable to correspondingly higher average payment sizes in both early and late stages of delinquency. The CEM Report also suggests that the DMM provides incentives to increase average payment size. *Id.*, Slide 10. The CEM Report further identifies that "[t]here is a direct relationship between Average Payment Size and Bucket Movement," *id.*, Slide 11. The CEM Report also states that the DMM system "seems to lead to higher Roll Back rates and lower Roll Forward rates" — that is, the DMM achieves the goal of moving accounts into lower states of delinquency. *Id.*

25.   Remarkably, the DMM achieves this commercial success with lower cost and fewer employees than the old CSS system. As shown in slide 8, "Strategy B and associated management practices [DMM] seems to yield better effectiveness at lower cost ... ." *Id.*, Slide 8. Furthermore, the DMM system has significantly fewer CSRs than the old CSS system. *See*, Slide 12 ("Strategy B [has] significantly lower Customer Service Representatives"). The DMM's lower workforce numbers is largely a result of the DMM's ability to accurately identify and reward CSRs that are performing better than others, and release CSRs that are not effective at improving the company's bottom line.

26.   As a result of the CEM Report and other analyses, it was decided that JPMorgan would integrate the DMM into its Heritage Chase Card Services division and other credit recovery divisions. This integration began in 2004, but even at this early stage the effect of the DMM on reducing losses on unsecured credit card debt can be seen. For example, Chart 1 shows the Average Payment Size ("APS") as a percentage of the average balance of credit card accounts for the HCC system (the lower line), and First USA's original DMM (the upper line - marked as "hBOCS Results"). As shown in

Chart 1, since incorporating the DMM into the HCC system, the APS has increased 76% since October of 2004 (from just over 4% in November of 2004 to almost 8% in July of 2005). This data confirms the CEM Report's analysis.

Port C APS % Average Balance Buckets 1-7
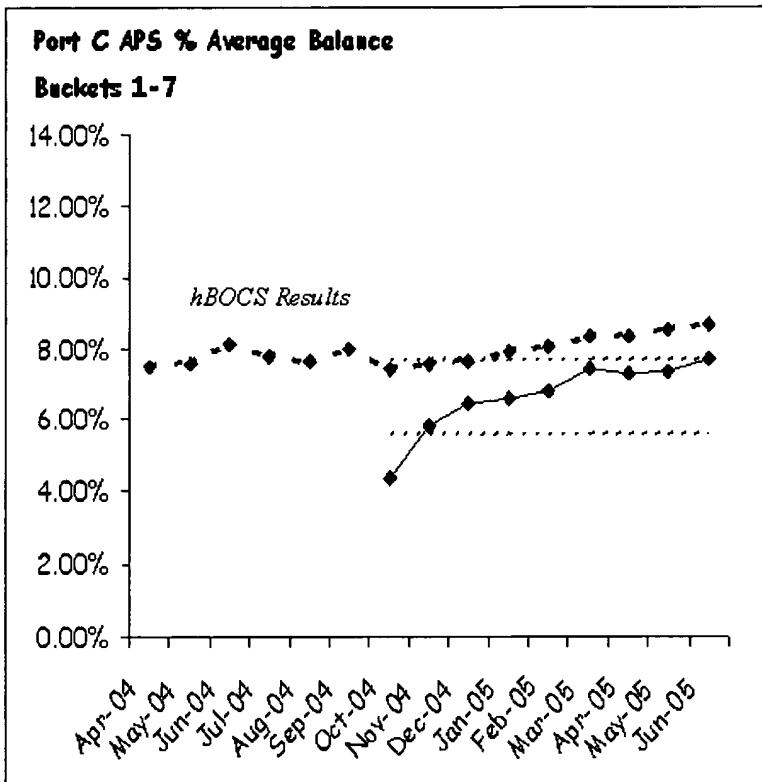
Chart 1

27.   Based on my understanding of the invention and its implementation at First USA and its successor entities, as described herein and otherwise known to me, the DMM has been the direct cause of significant improvements in reducing losses on delinquent credit card accounts, increasing CSR workforce efficiency, and improving CSR motivation. Each of these factors have contributed, both separately and together, to the commercial success of the entities that have employed the DMM.

28.   All statements made herein of my own knowledge are true, and all statements made on information and belief are believed to be true. These statements were made with the knowledge that willful false misstatements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001, and that such

willful false statements may jeopardize the validity of the application or any patent issuing therefrom.
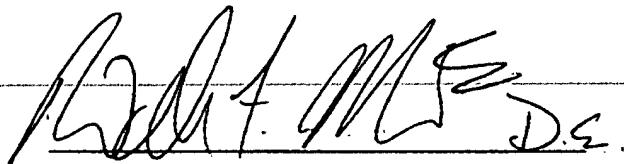
Dr. William F. Mann III

DATE: 04 Aug 05

County of   )
) ss.
State of   )

On this _4th_ day of _August_, 2005, before me a Notary Public
in and for the County and State aforesaid, personally appeared _William F Mann, III_
to me known and known to me to be the person of that name, who signed and sealed
the foregoing instrument, and acknowledged the same to be of his free act and deed.

Notary Public

(SEAL)

My Commission Expires
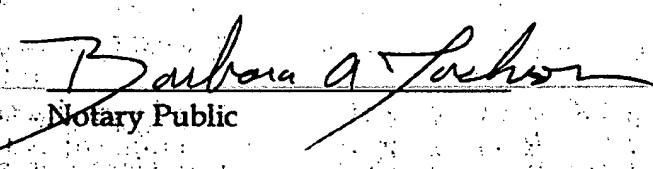
BARBARA A. JACKSON
NOTARY PUBLIC
DELAWARE
MY COMM. EXPIRES _9/15/__
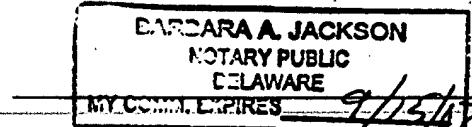
Exhibit A - Excerpts from First Discovery Training Manual

Calculating DMM Points

How DMM works

When a CSA enters a promise-to-pay on an account, DMM "takes a picture of the account." At this point it captures several facts about the account, but the two pieces of information we are interested in are:

(a.) the balance of the account
(b.) the level of delinquency on the account (in terms of cycles/buckets past due).

DMM then takes a second picture of the account *ten days later*, at which point the promise that started the process is either kept or broken. DMM then compares the two photos and looks at how the delinquency has changed on the account in the 10-day period.

Promise-to-Pay

TODAY:
- What is the account balance?
- How far past due is the account?

10 DAYS FROM TODAY:
- What is the account balance?
- How far past due is the account?

DMM WANTS TO KNOW:

Is the account less delinquent?

Is the account more delinquent?

Is the account at the same level of delinquency?
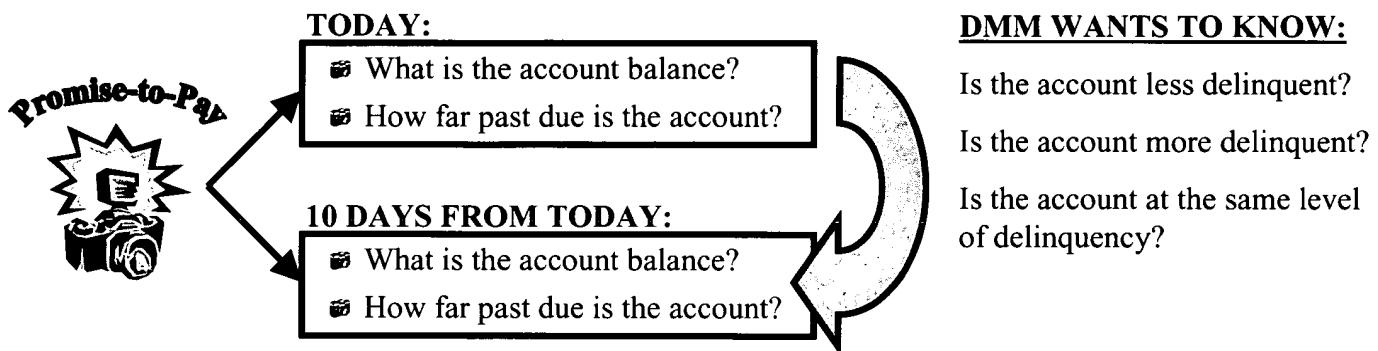
Again, DMM is only activated by a promise-to-pay. As always, the CSA must operate within the promise-to-pay guidelines to establish what payment arrangement constitutes a promise and what does not.

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DRAFT Calculating DMM Points (continued)

So How Many Points Do I Earn?

Multiply the balance of the account times the number of delinquent buckets moved. This calculation gives you your total DMM points earned or *Weighted Dollars Earned*.

Levels of Delinquency	
Up-to-Date	0 buckets
1- 30 DPD	1 bucket
31-60 DPD..........	2 buckets
61-90 DPD..........	3 buckets
91-120 DPD	4 buckets
121-150 DPD	5 buckets
151-180 DPD.......	6 buckets
181-210 DPD	7 buckets

$$\Rightarrow \textbf{\textit{DMM Points = (Balance) X (Buckets)}}$$

Examples:

#1. Michael brings an account that is 68 DPD with a $7,000 balance all the way up-to-date.

Question: How many DMM points does he earn for this account?

Answer: $21,000 DMM points.

#2. Rachele works an account with a $10,000 balance that is 155 DPD, and is able to bring it to 75 DPD.

Question: How many DMM points does she earn for this account?

Answer: $30,000 DMM points.

DRAFForward, Static, and Backward Roll

Forward, static, and backward rolls are situations that arise because of changes in the level of delinquency on an account. The type of roll is determined by comparing the two DMM pictures: (a.) the first taken when the promise-to-pay is entered; (b.) the second 10 days later. Understanding how the delinquency on an account can change in this 10-day time period will help us classify which situation applies.
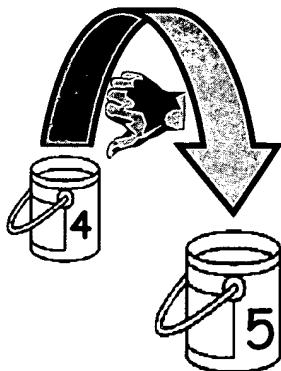
Forward Roll
- The account moved 1-cycle further past due.
- This situation can only happen if the account bills during this period.
- Has negative impact on DMM; the balance of the account counts as negative DMM points, and subtracts from overall DMM points.
- Situations that would result in Forward Roll:
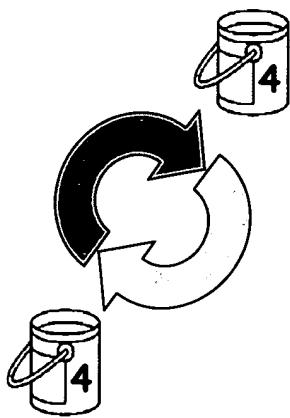
Static Roll
- The account moved no further past due, nor any closer to current.
- This situation can happen whether or not the account bills in this period.
- Has a neutral impact on DMM; no points are earned or lost.
- Situations that would result in Static Roll:
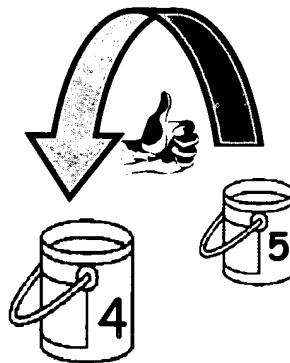
Backward Roll
- The account has improved in delinquency.
- This situation can happen whether or not the account bills in this period.
- Has a positive impact on DMM; points are earned based on the formula (balance) X (# of buckets moved).
- Situations that would result in Backward Roll

DRAFTDetermining Incentive Pay from DMM

Incentive pay is awarded on two levels:

1. For meeting all qualifiers, $100 incentive pay is earned for a full-timer. A part-timer earns $100 times the part-time schedule for meeting all qualifiers. For example, a person who works 20 hours per week has a part-time schedule of 0.5 (= 20/40) and will earn $50 (= 100*0.5). Similarly, a person who works 30 hours per week has a part-time schedule of 0.75 (= 30/40) and will earn $75 (=100*0.75).

2. For each 1000 DMM points above the DMM Point Threshold a flat payout rate is utilized, according to your functional group. Payout rates vary by functional group and current parameters. These cents are established based upon actual performance and ongoing enhancements to our incentive program.

   ### Examples:
Account Control	= 27¢ per 1000 points
Loss Control	= 52¢ per 1000 points
Contact Development	= 50¢ per 1000 points
Unique Portfolios	= 67¢ per 1000 points
Product Segmentation	= 67¢ per 1000 points

Calculating the amount of incentive pay is an easy process once all qualifiers are met:

1) Calculate total DMM points (Weighted Dollars Earned) earned
2) Subtract Minimum DMM Point Threshold times the Part-Time schedule.(Part-time schedule = Hours Worked per week/40 ; Part-time schedule for a full-timer is 1.)
3) Divide by 1,000
4) Multiply by functional group's cents/1000 points over threshold
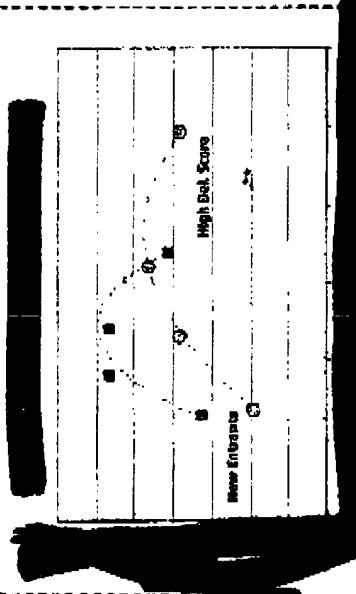5) Add initial payout of ($100* Part-Time schedule)

Exhibit B - Collections Effectiveness Matrix - Initial Review

Collections Effectiveness Matrix
Initial Review

Collections Effectiveness Matrix
Initial Review

BOCS-CCS Merger Integration

Tuesday, August 02, 2005

Collections Effectiveness Matrix
Initial Review

☐ Data gives no indication that Legacy BOCS Strategy ("Strategy B") will not be effective against 92.5% of CCS portfolio (excluding Low Prime).

☐ Supports likelihood of ▮▮▮▮ - roughly 62% attributable to Collections Effectiveness.

	Unit of Measurement	Bucket 1	Bucket 2-6
Asset Mix	Balance range and prior delinquency experience.	Similar Asset Mix across prior delinquency score categories, with the exception of the Medium delinquency level (Score 4-7).	Similar mix across the prior delinquency score categories. Balance drives the differences principally.
Liquidation	Cumulative payments over 6-mo period divided by Initial Balance and number of months.	In **64%** of cells (18 out of 28), Strategy B exceeds Strategy A by more than 10%. In **90%** of cells (25 out of 28), Strategy B's absolute rates are higher than Strategy A's.	In **85%** of cells (119 out of 140), Strategy B exceeds Strategy A by more than 10%. In **93%** of cells (130 out of 140), Strategy B absolute rates are higher than Strategy A
Loss	Cumulative Losses over 6-mo period divided by Initial Balance.	In **100%** of cells (28 out of 28), Strategy B exceeds Strategy A by more than 10%.	In **57%** of cells (80 out of 140), Strategy B exceeds Strategy A by more than 10%. In **84%** of cells (118 out of 140), Strategy B absolute rates are higher than Strategy A
		Strategy A consistently shows higher ▮▮▮▮ levels across all cells	Strategy A consistently shows higher ▮▮▮▮ levels across most buckets . Strategy B has highe▮ ▮ Bucket 6.
		Early Stage (Buckets 1-3)	Late Stage (Buckets 4-6)

Strategy A: CHASE
Strategy B: BOCS

BOCS-CCS Merger Integration

Tuesday, August 02, 2005

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Collections Effectiveness Matrix
Initial Review

Portfolio Performance (excluding Bucket 1)

Liquidation vs. Loss
Buckets 2 to 6 - Liquidation vs Loss
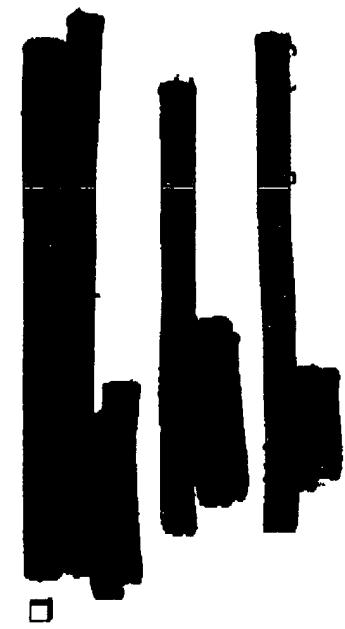
- **Comparative Results**
  - CCS ("Strategy A") and BOCS ("Strategy B") reflect relationship on similar slope lines
  - Strategy B tends to drive liquidation at higher rate
  - Charge-off rate declines as liquidation increases across all balance ranges (controlling for prior delinquency score).
- **Implications**
  - What role does asset mix play in these results?
    - "Quality", e.g. FICO score
    - Average Balance

Strategy A: CHASE
Strategy B BOCS

BOCS-CCS Merger Integration

Tuesday, August 02, 2005

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Collections Effectiveness Matrix
Initial Review

Asset Mix

☐ From a prior delinquency experience perspective, there are only minor differences between the two portfolios.

☐ In 23 out of 24 cells the variance between the two portfolios was within a +/- 10% range (the one instance being bucket 1 medium prior delinquency score -14.08%).

☐ Positive variations denote instances where BOCS maintains higher levels of concentration.

Asset Mix By Risk Proxy (% difference in balance composition by Bucket (OS)

	Prior Delinquency Score				
	New Entrants	Low	Med	High	All
Bucket 1 Variance	6.19%	4.29%	-14.08%	-7.04%	0.69%
Bucket 2 Variance	7.79%	6.10%	-1.40%	-9.18%	1.68%
Bucket 3 Variance	2.10%	4.07%	4.82%	-7.23%	-6.27%
Bucket 4 Variance	-5.24%	-7.02%	2.89%	6.12%	2.15%
Bucket 5 Variance	-1.30%	-8.73%	-0.41%	8.04%	-2.50%
Bucket 6 Variance	0.18%	-6.54%	-0.38%	6.39%	-5.21%
BOCS % of Total OS	25.47%	34.94%	19.50%	20.09%	100.00%
CHASE % of Total OS	24.19%	33.76%	21.04%	21.01%	100.00%

☐ From a balance weighted perspective, there is no material difference between the two portfolios.

☐ Approximately 60% of the total OS (Buckets 2 to 6) is found within the balance ranges [$4,500 - $7,500] and [$10,000 - $25,000]. There is minimal variance between the two portfolios within these ranges.

☐ BOCS has greater concentration in balances >$10,000 (37.4% vs. 30.4%) while Chase is more concentrated with balances between $4,501-$10,000 (45.5% vs. 40.7%).

Positive variations denote instances where BOCS maintains higher levels of concentration.

Asset Mix By Beginning Balance Range (% difference in balance composition by Bucket OS)

					Beginning Balance Range				
	$1,000	$1,001 $1,500	$1,501 $3,000	$3,001 $4,500	$4,501 $6,000	$6,001 $7,500	$7,501 $10,000	$10,001 $25,000	All
Bucket 1 Variance	5.85%	-15.92%	-13.45%	-16.13%	-15.77%	15.97%	76.08%	0.69%
Bucket 2 Variance	6.57%	-5.54%	-0.02%	-2.55%	-12.70%	0.51%	63.76%	1.68%
Bucket 3 Variance	8.35%	1.84%	3.47%	-1.55%	-15.79%	-3.10%	65.30%	-6.27%
Bucket 4 Variance	12.18%	-26.05%	-9.48%	-1.94%	-8.57%	2.77%	62.34%	2.15%
Bucket 5 Variance	14.39%	-27.12%	-13.76%	-1.76%	-6.58%	3.07%	57.43%	-2.50%
Bucket 6 Variance	24.96%	-26.40%	-16.89%	-2.94%	-7.44%	4.03%	59.56%	-5.21%
BOCS % of Total OS	1.81%	6.55%	13.52%	25.04%	15.62%	32.24%	5.21%	100.00%
CHASE % of Total OS	1.68%	7.47%	14.86%	27.72%	17.83%	28.95%	1.50%	100.00%

Collections Effectiveness Matrix
Initial Review

Buckets 2 to 6

This region
represents
50%-60% of
total Assets

3.5%
3.0%
2.5%
2.0%
1.5%
1.0%
0.5%
0.0%

High Del. Score

High Out. Score

New Entrants

New Entrants

⊙ Strategy A   ■ Strategy B

☐ Implications

☐ Strategy B and associated
management practices seems to
yield better effectiveness at lower
cost than Strategy A

☐ Results consistent across prior
delinquency experience bands

Strategy A: CHASE
Strategy B: BOCS

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Collections Effectiveness Matrix
Initial Review
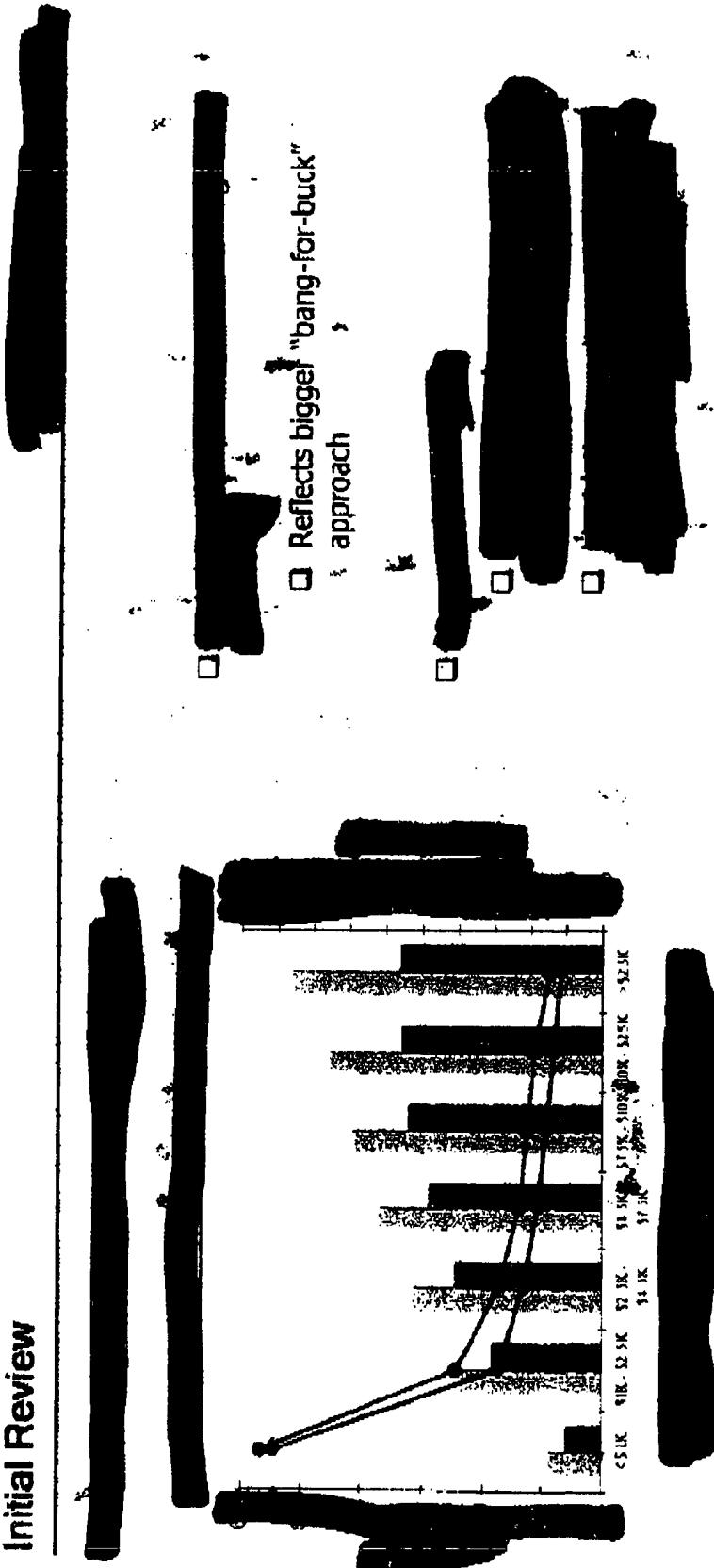
- ☐ Reflects bigger "bang-for-buck" approach

- ☐ Implications
  - ☐ Strategy B and associated management practices seems to yield better effectiveness at lower cost than Strategy A
  - ☐ Results consistent across balance ranges

Strategy A: CHASE
Strategy B: BOCS

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Collections Effectiveness Matrix
Initial Review
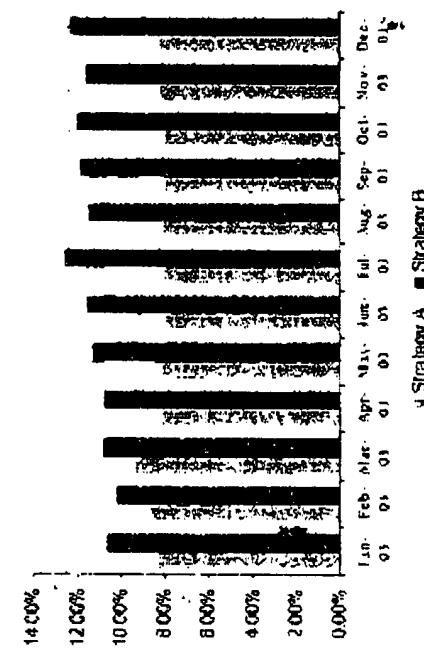
Average Payment Size

Average Payment Size

- Strategy B has higher liquidation rates due to correspondingly higher Average Payment Sizes in both Early and Late stages of delinquency.

  - Early Stage: Strategy B's APS is 51% larger than Strategy A.

  - Late Stage: Strategy B's APS is 36% larger than Strategy A.

- Moreover, Strategy B seems to be incenting growth in APS

  - Early stage: Strategy B's APS growth rate of 15% since April '03 compared to Strategy A's growth of less than 1%.

  - Late stage: Similar growth rates for both Strategies around 4% since April '03.

- Data obtained from common set of books.

Early Stage - Average Payment Size (% of Avg. Bce.)

Strategy A   Strategy B

Late Stage - Average Payment Size (% of Avg. Bce.)

Strategy A   Strategy B

Strategy A: CHASE (Core and Providian)

Strategy B: BOCS

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Collections Effectiveness Matrix
Initial Review

Average Payment Size

Average Payment Size
Average for 2003

Early Stage — Late Stage

⬜ Strategy A ⬛ Strategy B

Strategy A: CHASE (Core and Providian)
Strategy B: BOCS

Bucket Movement (6 months after)
June '03 snapshot for Buckets 2, 1, and 4

Roll Back — Static — Roll Forward

⬜ Strategy A ⬛ Strategy B

Strategy A: CHASE (Core and Providian)
Strategy B: BOCS

☐ There is a direct relationship between Average Payment Size and Bucket Movement.

☐ Average Payment Size for Strategy B seems to lead to higher Roll Back rates and lower Roll Forward rates.

☐ There is a 39% APS differential in early stage and 38% APS differential in late stage.

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Collections Effectiveness Matrix
Initial Review

APS Implications

Early Stage differential is 23%

Late Stage differential is 29%

0.58%

0.10%

0.83%

1.07%

Early Stage   Late Stage

Strategy A   Strategy B

1083

122

910

369

Early Stage   Late Stage

Strategy A   Strategy B
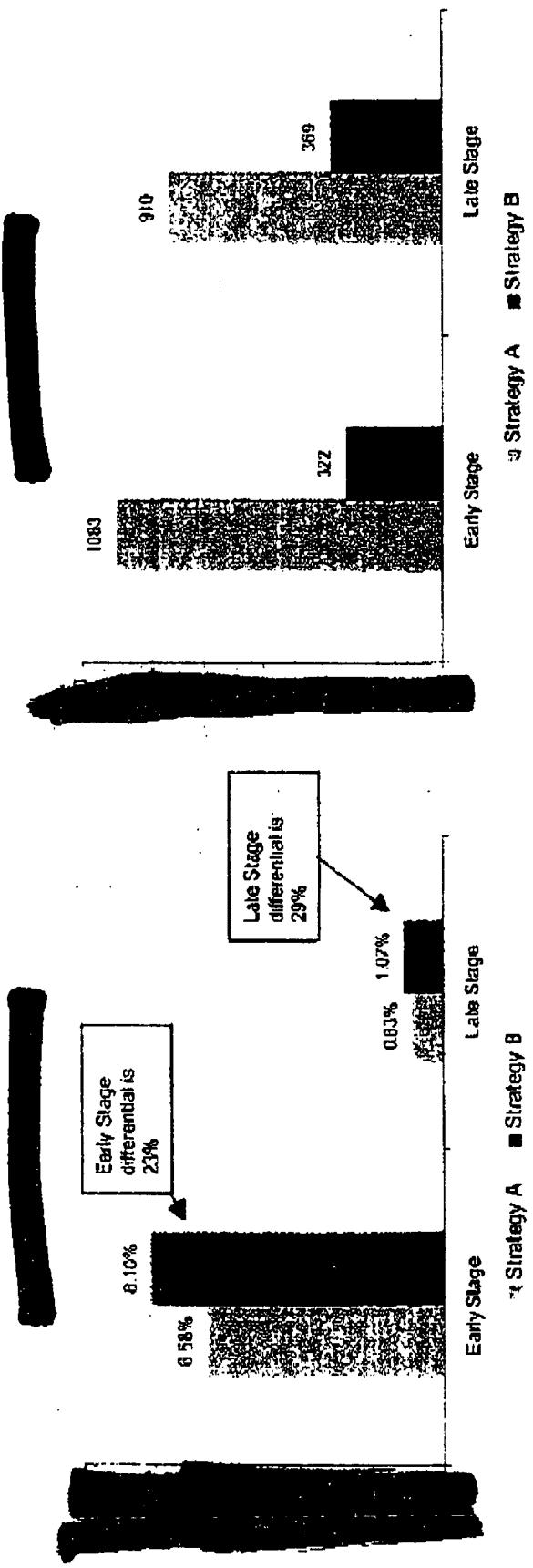
☐ Strategy B is generating ...ates in both early and late stages with significantly lower Customer Service Representatives.

☐ Transitioning to Strategy B's Collections Model ...

Strategy A: CHASE
Strategy B: BOCS

Collections Effectiveness Matrix
Initial Review

Conclusion

Buckets 2 to 6

Low Balance

High Balance

30.0% 35.0% 40.0% 45.0% 50.0% 55.0% 60.0% 65.0% 70.0%

o Strategy A   ■ Strategy B
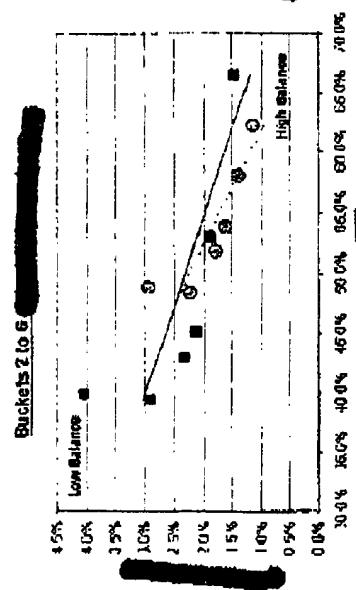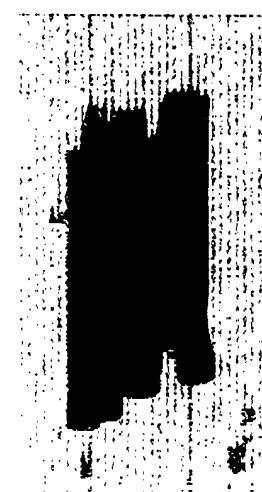
□ Asset quality differences are small, minimizing the influence of "risk" differences in results.

High Bal. Score

New Balance

o Strategy A   ■ Strategy B

□ Strategy B and associated management practices seems to yield better effectiveness at lower cost.

□ No indication that Strategy B will put CCS portfolio results at risk – supporting likelihood of achieving

Strategy A: CHASE
Strategy B: BOCS

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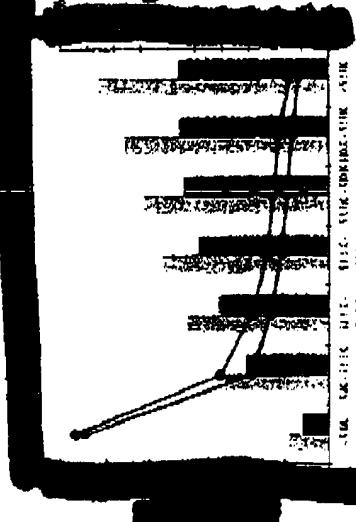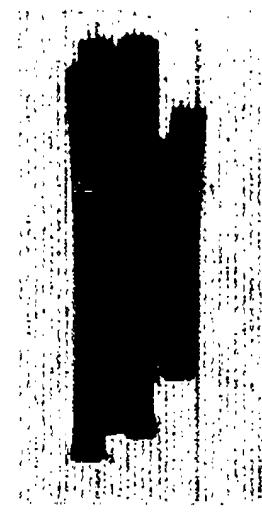
Collections Effectiveness Matrix
Initial Review

Implications

☐ No indication that BOCS approach will be ineffective against CHASE's portfolio.

- Performance parity – or advantage – in BOCS model across risk and balance ranges consistent.
- Low Prime still an "open question" – although less than **8%** of total CCS Portfolio.

☐ Adopting Strategy B

- Targeting changes: queue fewer accounts for action – even beyond impact of drop day.
- Production changes: predictive dialing increases and "no call" review activity declines.
- Training approach: emphasis on collaborative solutions (STP) which result in resolution of delinquency through curing.

☐ Significant Additional Opportunities

- Adopt Strategy A approach with appropriate testing for very high balance (Balance >$25,000) assets.
  - ☐ Strategy A Loss Rate **62.25%** vs. Strategy B Loss Rate **66.49%** in B2-B6.
- Develop a uniform approach to assets with no prior delinquency/experience (New Entrants).
  - ☐ Strategy A Loss rates better for new entrants in Buckets 4 and 5 with similar liquidation rates.
- Fine tune Intensity by Balance Range within a Bucket.

Collections Effectiveness Matrix
Initial Review

Liquidation

☐ Cumulative Cash Payments over the 6-mo period divided by Starting Balance and number of months

☐ Metrics focus on securing a payment and maximizing the size of that payment

Measurement & Metrics Evolution

Targeting

Intensity Optimization

Accounts queued for action ("WAOF") As A Percentage of Non-bankrupt, non-estate inventory

Negotiation Effectiveness

Transaction Value

Employee Incentive

Do employee incentives align

"DMM" Incentive - Employees score points based on "distance" a balance moves backward in delinquency - which is clearly a function of payment size - as well as the size of the balance moving

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Collections Effectiveness Matrix
Initial Review

Bucket 1

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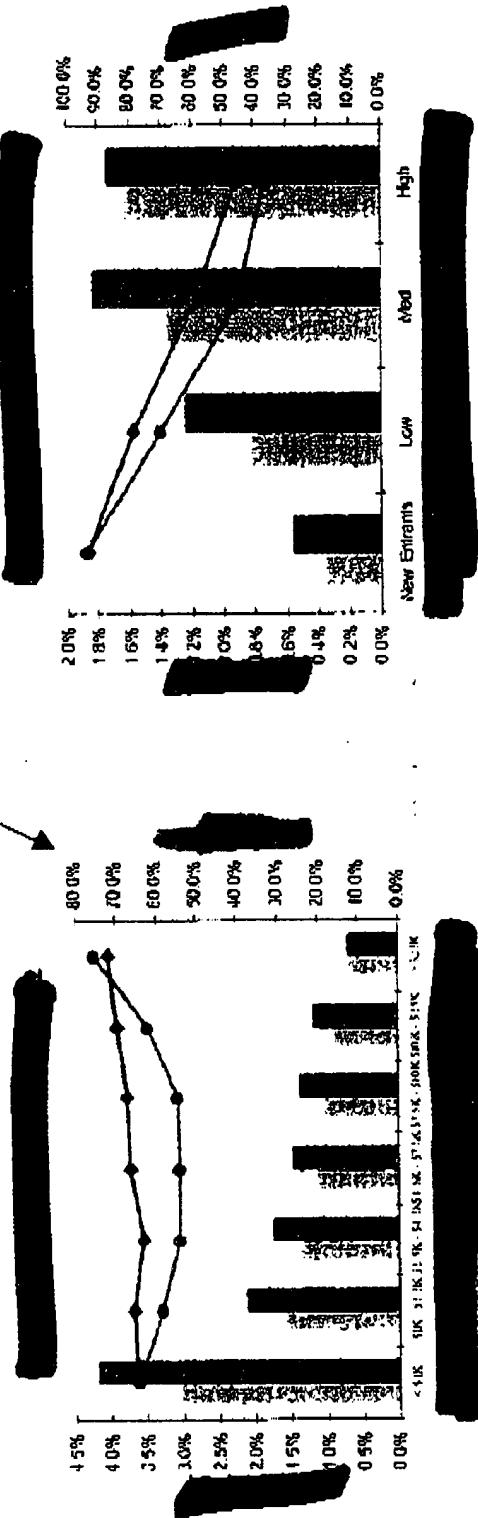# Collections Effectiveness Matrix
Initial Review

Bucket 1

Top Level View

Collections Effectiveness Matrix
Initial Review

Bucket 1

Portfolio Mix

Bucket 1 Prior Delinquency Score Composition

% of Bucket OS

- 45.000%
- 40.000%
- 35.000%
- 30.000%
- 25.000%
- 20.000%
- 15.000%
- 10.000%
- 5.000%
- 0.000%

New Entrants | Low | Med | High

CHASE ■BOCS

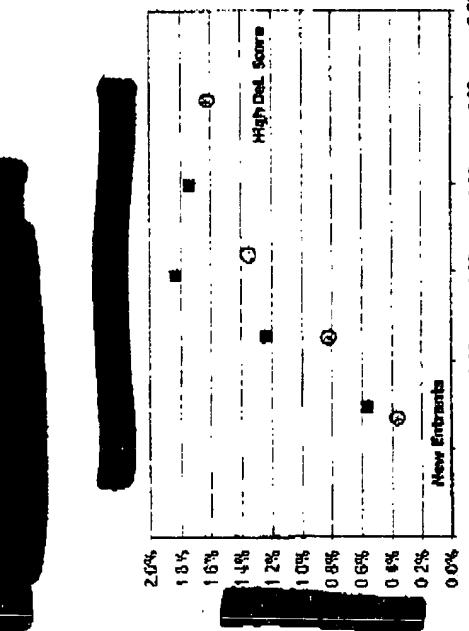- ❑ Bucket 1 represents approximately 63% of total OS for both portfolios.
- ❑ Bucket 1 prior delinquency score composition is similar in all but the medium prior delinquency score category.
- ❑ Most significant concentration of balances found between $4,501-$7,500 and $10,001-$25,000 with low prior delinquency scores.
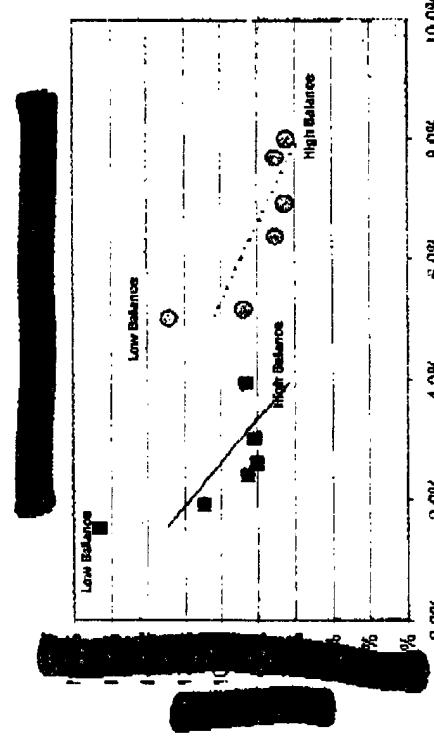
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Collections Effectiveness Matrix
Initial Review

Bucket 1
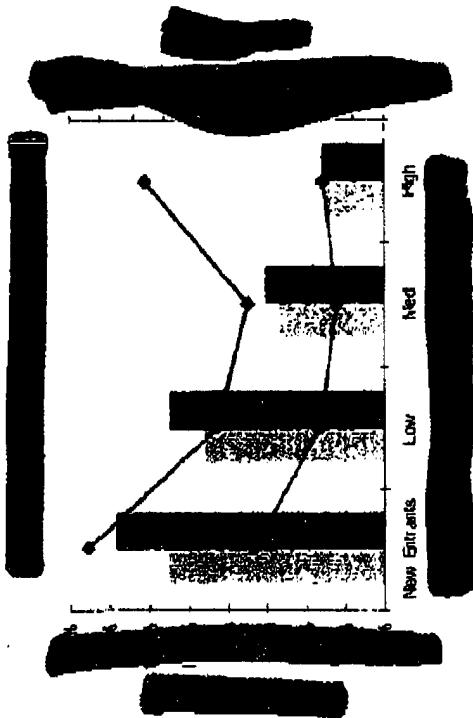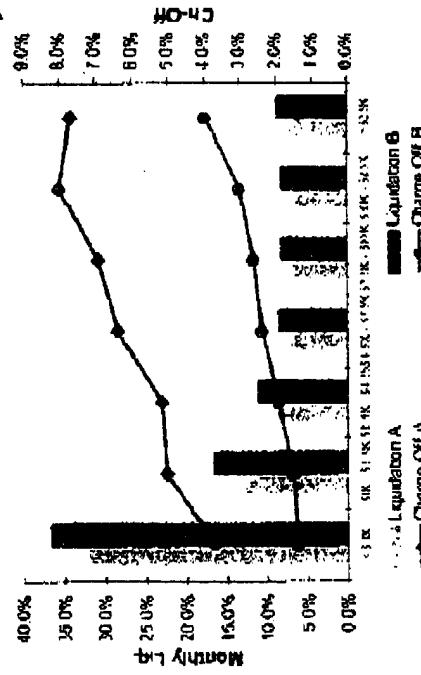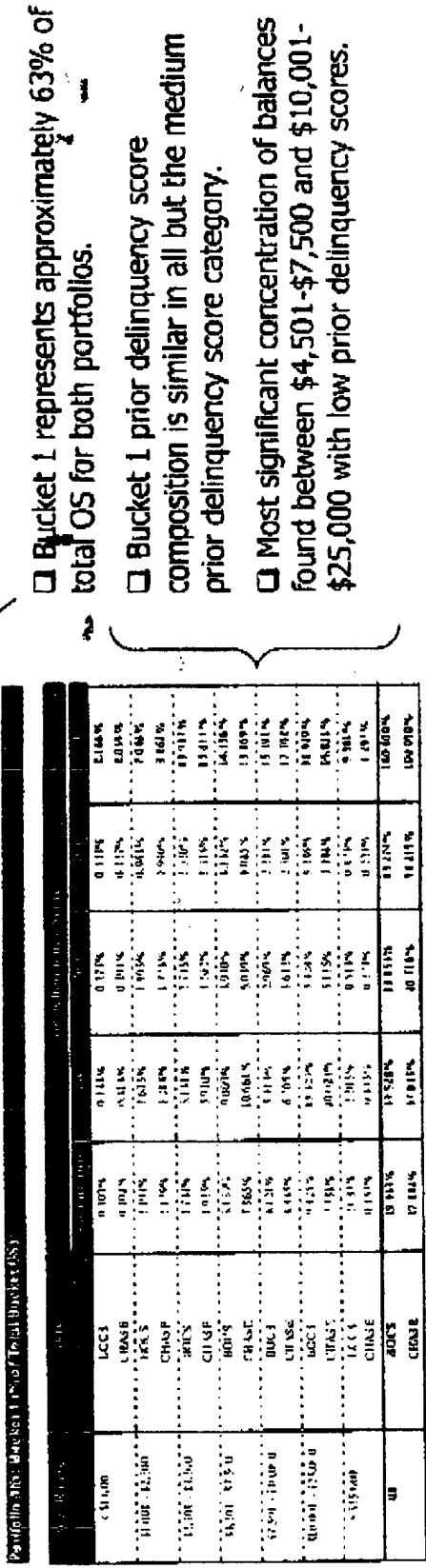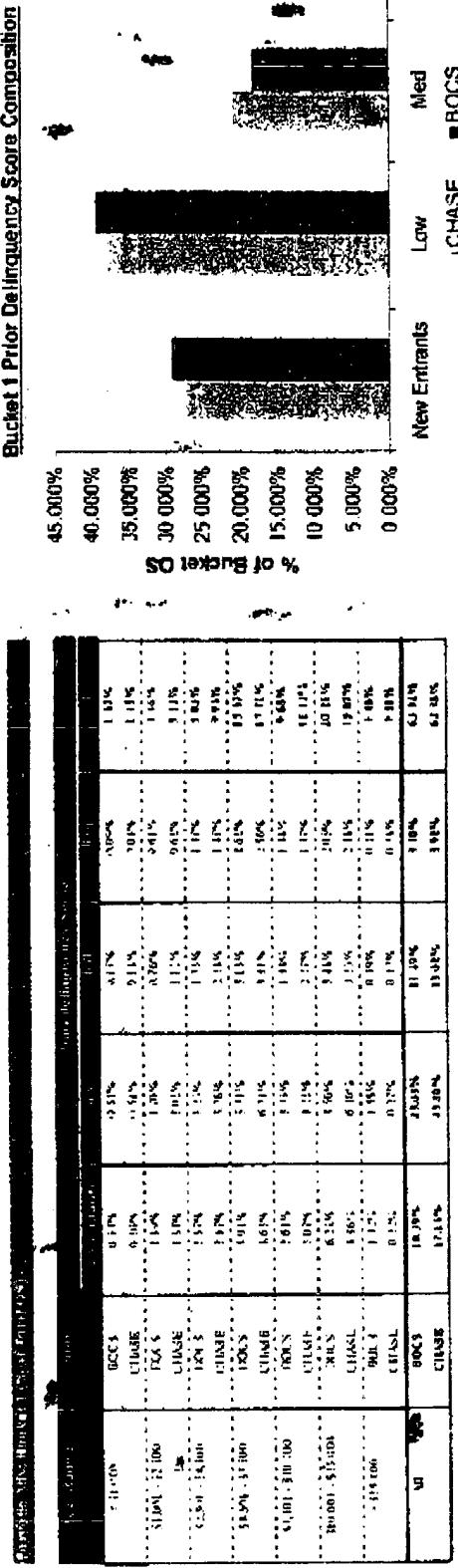
- Both Strategy A and Strategy B's [ ] are higher for higher delinquency score accounts. However, [ ] (due to payments from accounts that roll back to current status).
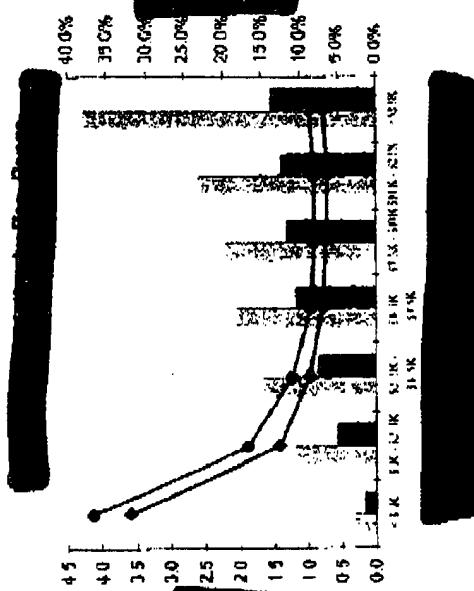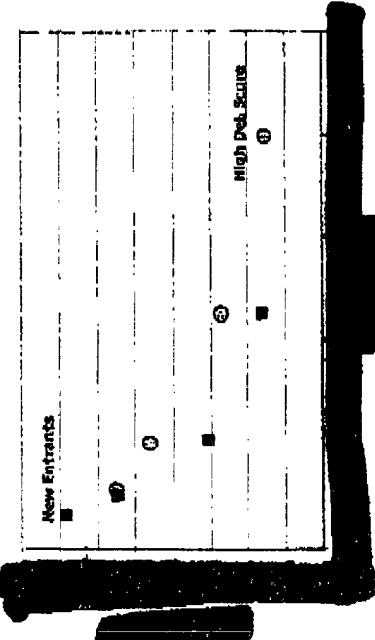
- [ ] ranges observed in both portfolios for this bucket.

Bucket 1 - Intensity vs Liquidation

New Entrants

High Del. Score

⊙ Strategy A   ■ Strategy B

Note: Shaded cells correspond to those in which difference between Strategy A and Strategy B is higher than 10%

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Bucket 2

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Collections Effectiveness Matrix
Initial Review

Bucket 2

Top Level View

- <$1,000 and >$25,000.

- both Strategy B and Strategy A.

- Similar relationship between as the one found in Bucket 1 except for balances greater than $25,000.

Low Balance High Balance

○ Strategy A ■ Strategy B

New Entrants Low Med High

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Collections Effectiveness Matrix
Initial Review
Bucket 2

Portfolio Mix

Bucket 2 Prior Delinquency Score Composition
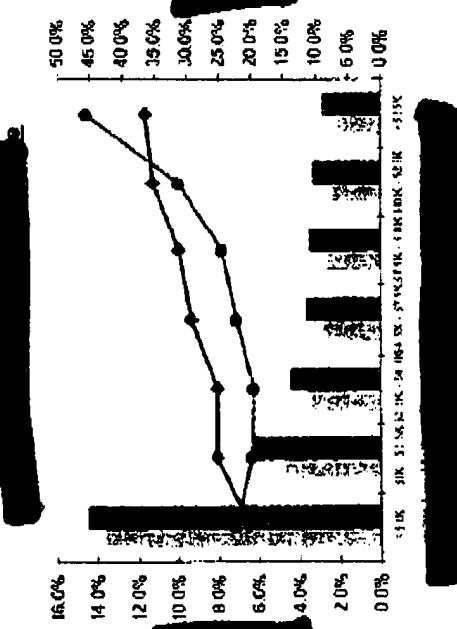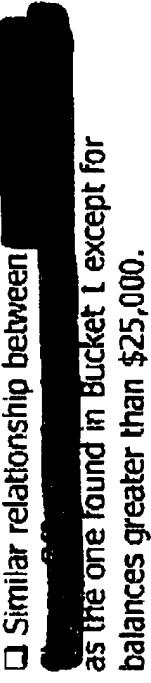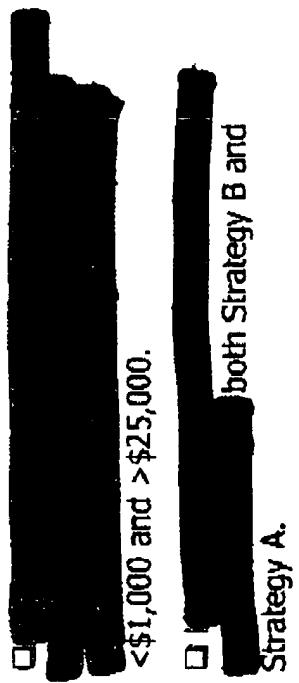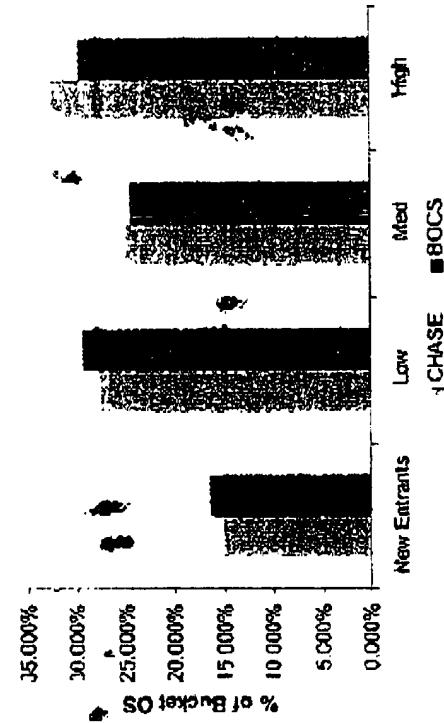
- Bucket 2 represents approximately 14% of total OS for both portfolios.

- Bucket 2 prior delinquency score mix is similar for both portfolios. The greatest variance occurs in the high prior delinquency score category.

- Bucket 2 balances are concentrated between $4,501-$7,500 and $10,001-$25,000 with high delinquency scores.

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Collections Effectiveness Matrix
Initial Review

Bucket 2

- Both Strategy B and Strategy A
- rates across
- trategy B's approach all balance ranges.

Notes: Shaded cells correspond to those in which difference between Strategy A and Strategy B is higher than 10%

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Collections Effectiveness Matrix

Initial Review

Bucket 3

Top Level View

- Strategy B portfolio shows
  ranges except for <$1,000 and >$25,000.
- Charge-off still declining as the prior
  delinquency score increases. However, it does
  seem tha

○ Strategy A   ■ Strategy B

High Balance   Low Balance   Low Balance

New Entrants   Low   Med   High

$<1K $1K-$2.1K $2.1K-$4 $4-$6.8K $6.8K-$10K $10K-$15K $15K-$20K $20K-$25K $>25K

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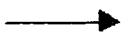
Collections Effectiveness Matrix
Initial Review

Bucket 3

Portfolio Mix

Bucket 3 Prior Delinquency Score Composition

% of Bucket OS

- 40.000%
- 35.000%
- 30.000%
- 25.000%
- 20.000%
- 15.000%
- 10.000%
- 5.000%
- 0.000%

New Entrants   Low   Med   High

CHASE   BOCS

- Bucket 3 represents approximately 8% of total OS for both portfolios.

- The bucket 3 prior delinquency score mix is very similar for both portfolios. The greatest variance exists in the high prior delinquency score category.

- Highest concentration of balances found between $10,001-$25,000 with high prior delinquency score.

Collections Effectiveness Matrix
Initial Review

Bucket 3

☐ Both Strategy B and Strategy A

☐

Notes: Shaded cells correspond to those in which difference between Strategy A and Strategy B is higher than 10%.

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Collections Effectiveness Matrix
Initial Review

Bucket 4

Collections Effectiveness Matrix
Initial Review

<u>Top Level View</u>

- ☐ Strategy B ranges with the exception of >$25,000.

- ☐ for both Strategy B and Strategy A.
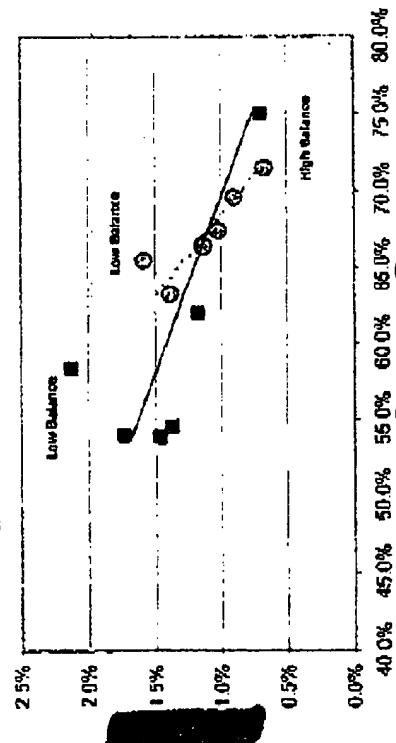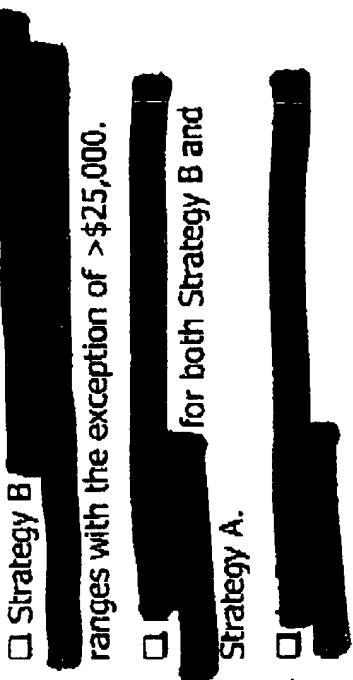
- ☐ There is a "U" shape relationship for Charge Off rates as the Balance range increases.

Low Balance

High Balance

⊙ Strategy A   ■ Strategy B

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Collections Effectiveness Matrix
Initial Review

Bucket 4

Portfolio Mix

Bucket 4 Prior Delinquency Score Composition
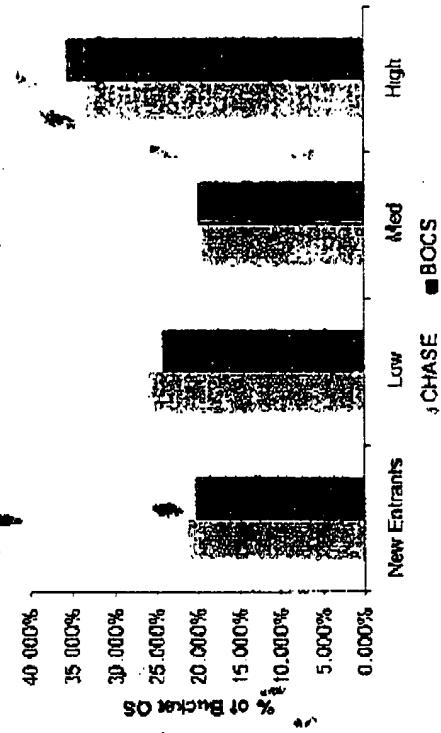
❏ Bucket 4 represents approximately 6% of total OS for both portfolios.

❏ Bucket 4 prior delinquency score composition is very similar for both portfolios. The greatest variance exists in the Low prior delinquency score category.

❏ Highest concentration of balances in balance range $10,001-$25,000 with higher risk level.

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Collections Effectiveness Matrix
Initial Review

Bucket 4

☐ Both Strategy A and Strategy B

☐ Strategy B's approach

Notes: Shaded cells correspond to those in which difference between Strategy A and Strategy B is higher than 10%.

Collections Effectiveness Matrix
Initial Review

Bucket 5

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Collections Effectiveness Matrix
Initial Review

Bucket 5

__Top Level View__

- Strategy B
- Balance ranges except <$1,000 and >$25,000.
- There is a less pronounced "U" shape relationship for Charge Off rates as the Balance range increases.
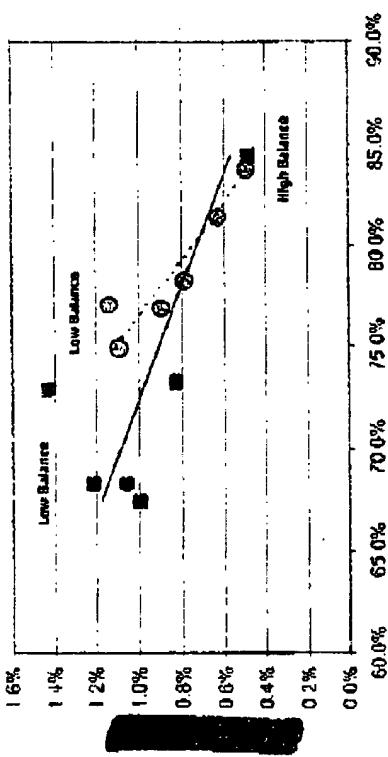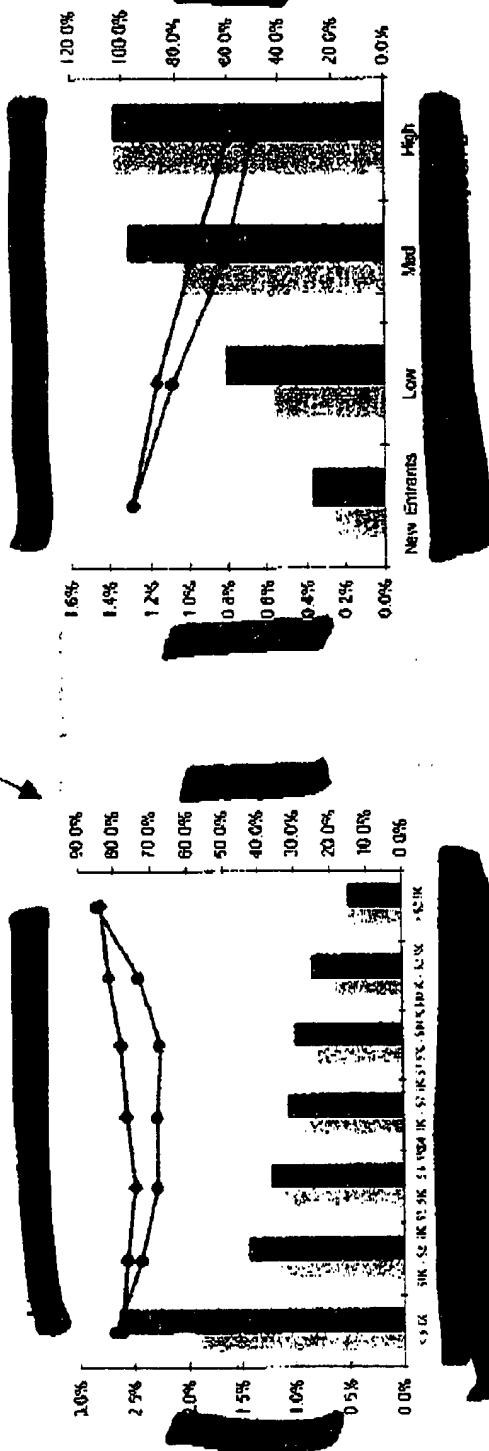
o Strategy A   ■ Strategy B

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Collections Effectiveness Matrix
Initial Review

Bucket 5

Portfolio Mix
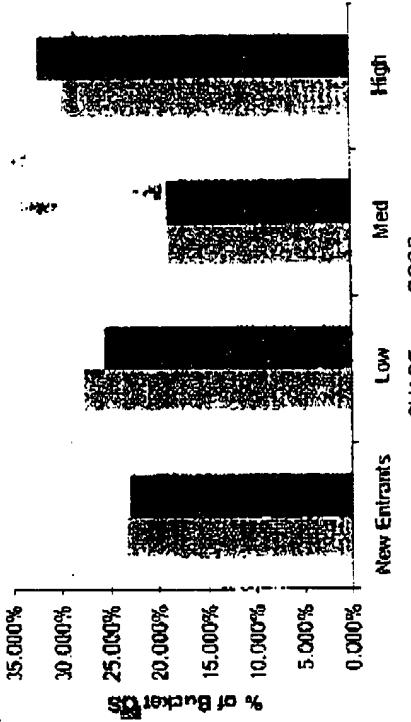
Bucket 5 Prior Delinquency Score Composition

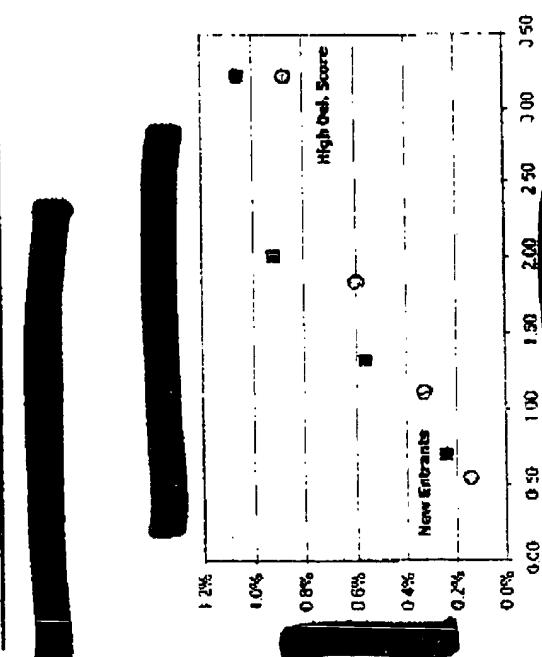
- Bucket 5 represents approximately 5% of total OS for both portfolios.
- The prior delinquency score composition is very similar for both portfolios in bucket 5. The greatest variance occurs in the Low prior delinquency score category.
- This bucket is highly concentrated with high risk accounts with balances between $10,001-$25,000.

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Collections Effectiveness Matrix
Initial Review
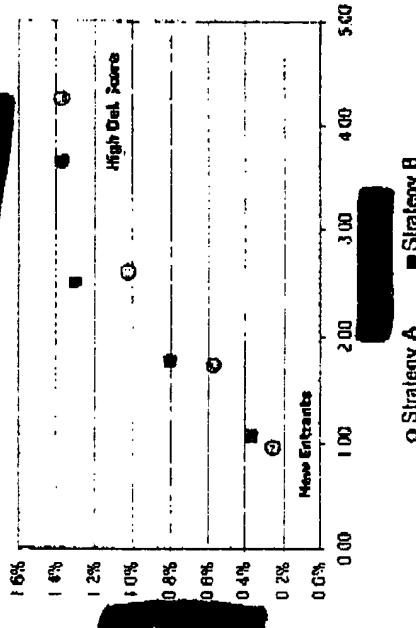
Bucket 5

- ☐ direct relationship betwee...

- ☐ The ... decreases as the prior delinquency score level increases.

- ☐ Strategy B's approach leads t...

High Del Score

New Entrants

o Strategy A   ■ Strategy B

Notes: Shaded cells correspond to those in which difference between Strategy A and Strategy B is higher than 10%.

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Collections Effectiveness Matrix
Initial Review

Bucket 6

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Collections Effectiveness Matrix
Initial Review

Top Level View

Bucket 6
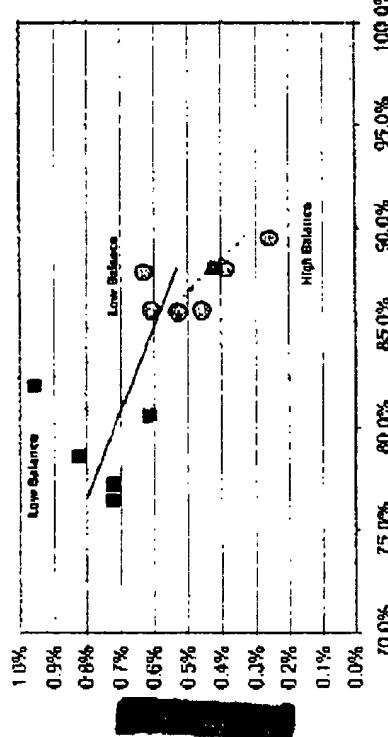
□ Strategy B portfolio shows

ranges with the exception of <$1,000.

□ ____ both Strategy B and Strategy A.

□ As Balance Range increases

□ There is a pronounced "U" shape relationship for Strategy B's Charge Off rates as the Balance range increases.

◇ Strategy A   ■ Strategy B

Low Balance

High Balance

High   Mid   Low   New Entrants

Collections Effectiveness Matrix
Initial Review

Portfolio Mix

Bucket 6

Bucket 6 Prior Delinquency Score Composition

% of Bucket OS — 35.000%, 30.000%, 25.000%, 20.000%, 15.000%, 10.000%, 5.000%, 0.000%

New Entrants | Low | Med | High

CHASE ■ BOCS

- Bucket 6 represents approximately 4% of total OS for both portfolios.

- The prior delinquency score composition is very similar for both portfolios. The greatest variance exists in the Low prior delinquency score category.

- Most significant proportion of balances concentrated in balance range $10,001-$25,001 with prior delinquency scores that are either high or low.

Collections Effectiveness Matrix
Initial Review

☐ A visible direct

☐ Strategy B's approach leads to

Notes: Shaded cells correspond to those in which difference between Strategy A and Strategy B is higher than 10%.

High Bal. Score

o Strategy A   ■ Strategy B

New Entrants

BOCS-CCS Merger Integration

Collections Effectiveness Matrix
Initial Review

Appendix

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